Amendments to the Claims:

1. (currently amended) An analog demodulator used in a low-IF receiver, the analog demodulator comprising:

a receiving circuit for receiving in-phase IF (intermediate frequency) signals and quadrature-phase IF signals;

at least one first calibration device connected to the receiving circuit for reducing DC components of the in-phase IF signals and the quadrature-phase IF signals;

a reference source for providing a reference clock;

a local oscillator signal generator electrically connected to the reference source for transferring the frequency of the reference clock to a predetermined frequency; and

at least one mixer electrically connected to the local oscillator signal generator and the at least one first calibration device for processing the pair of quadrature signals;

wherein the at least one first calibration device is serially connected between the receiving circuit and the at least one mixer and comprises a filter for reducing DC components of the in-phase IF signals and the quadrature-phase IF signals.

2. (currently amended) The analog demodulator of claim 1, wherein the filter is ~~each of the first calibration devices comprises~~ a notch filter or a high pass filter.

3. (original) The analog demodulator of claim 1 further comprising at least one second calibration device electrically connected to the corresponding mixer for reducing DC offset generated by the mixer.

4. (original) The analog demodulator of claim 3, wherein each of the second

calibration devices comprises a controllable current mirror, wherein the controllable current mirror is used to transform the in-phase IF signals and the quadrature-phase IF signals into corresponding current signals and to adjust a bias current in an input circuit of the mixer equal to the corresponding current signals for reducing LO leakage generated when the in-phase IF signal and the quadrature-phase IF signal pass the mixer.

5. (original) An analog demodulator used in a low-IF receiver, the analog demodulator comprising:

a receiving circuit for receiving a pair of quadrature signals;

a reference source for providing a reference clock;

a local oscillator signal generator electrically connected to the reference source for lowering the frequency of the reference clock to a predetermined frequency;

at least one mixer electrically connected to the local oscillator signal generator and the receiving circuit for respectively processing the pair of quadrature signals; and

at least one second calibration device electrically connected to the corresponding mixer for erasing DC offset generated by the mixer.

6. (original) The analog demodulator of claim 5, wherein each of the second calibration devices comprises a controllable current mirror, wherein the controllable current mirror is used to transform the pair of quadrature signals into corresponding current signals and to adjust a bias current in an input circuit of the mixer equal to the corresponding current signals for erasing LO leakage generated when the pair of quadrature signals pass the mixer.

7. (currently amended) The analog demodulator of claim 5 further comprising at least one first calibration device connected to the receiving circuit for

reducing DC components of the pair of quadrature signals ~~in-phase IF signals and the quadrature-phase IF signals~~; wherein the at least one first calibration device is serially connected between the receiving circuit and the at least one mixer and comprises a filter for reducing DC components of the pair of quadrature signals.

8. (currently amended) The analog demodulator of claim 7, wherein ~~each of~~ the filter is ~~first calibration devices comprises~~ a notch filter or a high pass filter.

9. (currently amended) An analog demodulator used in a low-IF receiver, the analog demodulator being an image-rejected analog demodulator with image-rejection capability, the analog demodulator comprising:

a receiving circuit for receiving a pair of quadrature IF (intermediate frequency) signals;

a reference source for providing a reference clock;

a local oscillator signal generator electrically connected to the reference source for transferring the frequency of the reference clock to a predetermined frequency;

at least one mixer electrically connected to the local oscillator signal generator and a calibration device for processing the pair of quadrature signals; and

a filtering device electrically connected to the local oscillator signal generator for reducing high-order harmonic components generated by the local oscillator signal generator;

wherein the calibration device is serially connected between the receiving circuit and the at least one mixer and comprises a filter for reducing DC components of the pair of quadrature IF signals.

10. (original) The analog demodulator of claim 9, wherein the

image-rejection ability of the analog demodulator relies on whether the quadrature phase difference among four input signals of the local oscillator signal generator is 90 degrees and whether amplitudes of the four input signals of the local oscillator signal generator are the same.

11. (original)The analog demodulator of claim 9, wherein the filtering device is a poly-phase filter, a low pass filter, or a digital filter.